

REMARKS/ARGUMENTS

In the Office Action, the Examiner allowed claims 2-5, 13, 16-19, 27, 30-32, and 37 if rewritten in independent form including all of the limitations of the base claim and any intervening claims; rejected claims 6-10, 20-24, 33-35 under 35 U.S.C. 112, second paragraph; rejected claims 1, 11-12, 15, 25-26, 29, and 36 under 35 U.S.C. 102(b) as being anticipated by *Goslin et al.* (U.S. Pat. No. 6,120,549); and rejected claims 1, 14-15, 28-29, and 38 under 35 U.S.C. 102(e) as being anticipated by *Chiu et al.* (U.S. Pat. App. Pub. No. 2004/0107078 A1). The Applicant appreciates the indication of allowable subject matter. Applicant traverses the rejections for the reasons set forth below. Reconsideration is respectfully requested based on the remarks below.

Claims 1, 2, 6, 10, 15, 16, 20, 24, 29, 30, 32-36, and 38 have been amended to further clarify the subject matter regarded as the invention. At least some of the amendments spell out concepts that were inherent in the original claims and therefore do not narrow the claims. Claims 13, 27, and 37 have been canceled without prejudice. Accordingly, claims 1-12, 14-26, 28-36, and 38 are now pending in this application.

ALLOWABLE SUBJECT MATTER

It is respectfully submitted that claims 2, 16, and 30 are in condition for allowance since they have been rewritten in independent form including all of the limitations of the base claim and any intervening claims as pointed out by the Examiner. It is also respectfully submitted that claims 3-5, 17-19, 31 and 32 are allowable since they depend directly or indirectly from claims 2, 16, or 30.

REJECTION OF CLAIMS 6-10, 20-24, 33-35 UNDER 35 U.S.C. § 112, 2nd PARAGRAPH

Claims 6, 20, and 33 have been amended to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Specifically, claim 6 has been amended to recite "generating a revised optimal module by time-domain multiplexing the optimal candidate module if the optimal candidate module runs at a data rate substantially faster than the desired input data rate." Claim 20 has been amended to recite "instructions for generating a revised optimal module by time-domain multiplexing the optimal candidate module if the optimal candidate module runs at a data rate substantially faster than the desired

input data rate." Claim 33 has been amended to recite "wherein the design tool is further configured to generate a revised optimal module by time-domain multiplexing the optimal candidate module if the optimal candidate module runs at a data rate substantially faster than the desired input data rate."

Similarly, claims 10, 24, and 35 have also been amended to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Specifically, claim 10 has been amended to recite "generating a revised optimal module by using multiple instantiations of the optimal candidate module if the optimal candidate module runs at a data rate substantially slower than the desired input data rate." Claim 24 has been amended to recite "instructions for generating a revised optimal module by using multiple instantiations of the optimal candidate module if the optimal candidate module runs at a data rate substantially slower than the desired input data rate." Claim 35 has been amended to recite "wherein the design tool is further configured to generate a revised optimal module by using multiple instantiations of the optimal candidate module if the optimal candidate module runs at a data rate substantially slower than the desired input data rate."

Support for the amendments can be found in Figure 3B, operations 336 and 338, Figure 6, Figure 8, and elsewhere in the specification. Applicant believes that the amendments address the Examiner's rejection of claims 6, 10, 20, 24, 33, and 35 under 35 U.S.C. § 112, second paragraph. Further, since claims 7, 8, 9, 21, 22, 23, and 34 each depend either directly or indirectly from claims 6, 20, or 33, they are respectfully submitted to have addressed the Examiner's rejection for at least the reasons set forth above with respect to claims 6, 20, or 33. Therefore, it is respectfully requested that the rejection under 35 U.S.C. § 112, second paragraph, be withdrawn.

PATENTABILITY OF CLAIMS 1, 11-12, 14-15, 25-26, 28-29, 36, AND 38

Independent claims 1, 15, and 29 have been amended to include similar limitations from canceled claims 13, 27 and 37, which the Examiner indicated as being allowable subject matter in the Office Action. Specifically, claim 1 includes the limitation "performing timing simulation using either the optimal candidate module or a revised optimal module that is based on the optimal candidate module." Claim 15 includes the limitation "instructions for performing timing simulation using either the optimal candidate module or a revised optimal module that is based on the optimal candidate module." Claim 29 includes the limitation "perform timing simulation using either the optimal candidate module or a revised optimal module that is based on the

optimal candidate module." As such, it is respectfully submitted that claims 1, 15, and 29 are patentable over cited art.

The Examiner's rejections of the dependent claims are respectfully traversed. Claims 11, 12, 14, 25, 26, 28, 36 and 38 each depend either directly or indirectly from independent claims 1, 15, or 29 and, therefore, are respectfully submitted to be patentable over cited art for at least the reasons set forth above with respect to claims 1, 15, or 29. Further, the dependent claims require additional elements that when considered in context of the claimed inventions further patentably distinguish the invention from the cited art.

SUMMARY

It is respectfully submitted that all pending claims are allowable and that this case is now in condition for allowance. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

If any fees are due in connection with the filing of this Amendment, the Commissioner is authorized to deduct such fees from the undersigned's Deposit Account No. 50-0388 (Order No. ALTRP090).

Respectfully submitted,
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